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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,847	08/13/2001	Steen Troels Jorgensen	10022.204-US	9117

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EXAMINER

LAMBERTSON, DAVID A

ART UNIT PAPER NUMBER

1636

DATE MAILED: 09/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/928,847

Applicant(s)

JORGENSEN ET AL.

Examiner

David Lamberston

Art Unit

1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5,30-44,63 and 66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-5,30-44,63 and 66 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-5, 44 and 63, drawn to a method for constructing a host cell using a DNA construct and the resulting host cell, classified in class 435, subclass 485.  
Concerning claim 63, it is claimed in a Markush format; however the members of the Markush group do not possess unity of invention. The members of the group are different from each other because each member is a different gene with a different function, therefore there is no structure/function relationship between members of the group (See MPEP 803.02). Upon election of Group I, Applicant is required to elect two members of the Markush group set forth in the claim.
- II. Claims 30-33, drawn to a DNA construct containing an altered D-alanine racemase gene, classified in class 536, subclass 23.1.
- III. Claims 30, and 33-34, drawn to a DNA construct containing an altered xylose isomerase gene, classified in class 536, subclass 23.1.
- IV. Claims 30, 33, and 35, drawn to a DNA construct containing an altered galactokinase gene, classified in class 536, subclass 23.1.
- V. Claims 30, 33, and 35, drawn to a DNA construct containing an altered UTP-dependent pyrophosphorylase gene, classified in class 536, subclass 23.1.
- VI. Claims 30, 33, and 35, drawn to a DNA construct containing an altered UDP-glucose-dependent uridylyltransferase gene, classified in class 536, subclass 23.1.

- VII. Claims 30, 33, and 35, drawn to a DNA construct containing an altered UDP-galactose-epimerase gene, classified in class 536, subclass 23.1.
- VIII. Claims 30, 33, and 36, drawn to a DNA construct containing an altered gluconate kinase gene, classified in class 536, subclass 23.1.
- IX. Claims 30, 33, and 36, drawn a DNA construct containing an altered gluconate permease gene, classified in class 536, subclass 23.1.
- X. Claims 30, 33 and 36, drawn to a DNA construct containing an altered gluconate permease gene and an altered gluconate kinase gene, classified in class 536, subclass 23.1.
- XI. Claims 30, 33, 37 and 38, drawn to a DNA construct containing an altered glycerol permease gene, classified in class 536, subclass 23.1.
- XII. Claims 30, 33, 37, and 38, drawn to a DNA construct containing an altered glycerol kinase gene, classified in class 536, subclass 23.1.
- XIII. Claims 30, 33, 37, and 38, drawn to a DNA construct containing an altered glycerol dehydrogenase gene, classified in class 536, subclass 23.1.
- XIV. Claims 30, 33, 37 and 38, drawn to a DNA construct containing an altered glycerol permease gene, an altered glycerol kinase gene and an altered glycerol dehydrogenase gene, classified in class 536, subclass 23.1.
- XV. Claims 30, 33, 37 and 38, drawn to a DNA construct containing an altered glycerol permease gene and an altered glycerol kinase gene, classified in class 536, subclass 23.1.

- XVI. Claims 30, 33, 37 and 38, drawn to a DNA construct containing an altered glycerol permease gene and an altered glycerol dehydrogenase gene, classified in class 536, subclass 23.1.
- XVII. Claims 30, 33, 37 and 38, drawn to a DNA construct containing an altered glycerol kinase gene and an altered glycerol dehydrogenase gene, classified in class 536, subclass 23.1.
- XVIII. Claims 30, 33, 39, and 40, drawn to a DNA construct containing an altered arabinose isomerase gene, classified in class 536, subclass 23.1.
- XIX. Claims 30, 33, and 41-43, drawn to a DNA construct containing an altered methionine synthesis gene, classified in class 536, subclass 23.1.
- XX. Claims 30, 33, and 41-43, drawn to a DNA construct containing an altered lysine synthesis gene, classified in class 536, subclass 23.1.
- XXI. Claim 66, drawn to a method for producing an enzyme of interest, classified in class 435, subclass 69.1.

Claims 30 and 33 are generic claims to each of the different inventions in which they are included, and will be examined only to the extent that the generic claims read on the elected inventions.

Concerning claims 35-38, these claims recite different genes in the alternative, therefore each gene (or combination of genes, when so indicated in the claims) represents a patentability distinct invention.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Groups II-XX are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process can be practiced using a materially different product. Each of the individual constructs represents a patentably distinct invention because each is a structurally and functionally diverse molecule. Since each molecule can be used individually to practice the claimed method, the method can be practiced using patentably distinct products. A search of one group would not be co-extensive with a search of the other hence said search would be burdensome.

Inventions Group I and Group XXI are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process can be practiced using a materially different method. The production of an enzyme of interest can be practiced using basic purification techniques, recombinant technology or peptide synthesis, and does not require the cells produced by the method of Group I. A search of one group would not be coextensive with a search of the other hence said search would be burdensome.

Inventions Groups II-XX are unrelated to each other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions. Each group consists of an individual DNA construct representing one or more of several genes. Each of these genes (and combinations thereof) have different sequences, therefore different structures and functions, thus they are patentably distinct. A search of one group would not be co-extensive with a search of the other hence said search would be burdensome.

Inventions Groups II-XX and Group XXI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different effects. The DNA constructs of Groups II-XX are unrelated to a method for producing an enzyme of interest (Group XXI) because the effect of Group XXI is the production of an enzyme, whereas the DNA constructs do not directly result in the same effect. A search of one group would not be co-extensive with a search of the other, hence said search would be burdensome.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, and so on, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Lambertson whose telephone number is (703) 308-8365. The examiner can normally be reached on 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel can be reached on (703) 305-1998. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

David A. Lambertson  
September 4, 2002

DAVID GUZO  
PRIMARY EXAMINER  
